Transcript

Interview with Peps Mccrea

LC: I'm with *Peps Mccrea*, who is a lecturer at Brighton, senior lecturer in mathematics at the University of Brighton, is that right?

PM: Well, I'm a teacher/educator, rather than a lecturer in Mathematics, so my specialism is in education rather than the maths.

LC: Than the maths side, right, and learning design?

PM: That's right. Well, that's kind of how I brand myself a little bit. It's, I suppose, what I see as increasingly important. There's a bit of…well, certainly in education or as education is evolving, we're seeing a greater need for educators who have a specialism in the pre-active phase of teaching, so what I mean by that is that most educators have to do two… there are two main parts of their job, there's planning for learning and then there's the execution of it, or delivery, as some people call it. Now, what edtech's doing is that it's pulling those roles slightly apart or making a clear distinction between them, and so what I'm trying to do as part of my job and what I'm specialising in is that pre-active phase, the design of learning rather than the execution and carrying out, because that's really what edtech needs, is specialists in that kind of side of education, because, well, that's what a lot of edtech is, is designing for learning and then just letting it happen.

LC: Yeah, in terms of *UX design*, it doesn't exist in terms of practicalities in education, although it's not the same thing, but it's along some of the lines, and I think that kind of thing is quite new in this arena.

PM: Yeah, I'd agree. I think it's always been there in some way, but it just hasn't been…the importance of it hasn't been recognised, and I think *UX* is a really good example of something that's I feel really undervalued in education at the minute, and so I suppose learning design is a very close brother or sister of user experience, and it's a case of just trying to emphasise the importance of that, because I think education has missed that boat for a while for too long, in fact.

LC: So, can I ask you to give us a bit of personal history, so, give us a bit of context of where you are now, and how you got here, and a bit of background. Tell us a bit about yourself and how you ended up where you ended up, because I find that's quite interesting for people to listen to.

PM: I grew up in Northern Ireland, in a rural community. My mum was part of a big family, she was a teacher, as were pretty much most of her seven sisters, and her dad. It's an open school that she went to, that I went to, and so education's in my blood a lot in that way. No surprise to hear that I've ended up becoming an educator myself, but my wife is also a maths teacher, as is my sister, so it's…the conversation round the dinner table's pretty interesting at Christmas for everybody, except for my dad. Poor

him. So, I fell into maths teaching myself, the path was pre-ordained, I suppose, and then after about five or six years of doing that, I found myself in the role of a teacher/educator and so I've changed positions slightly so that I'm helping other people to become maths teachers now.

LC: Right, okay. Now, the interesting thing that I found was coming across the fact that you were interested in learning design. Can you just tell people, I mean, we talked about *UX*, which is user design and environments, but can you tell us what learning design is, because a lot of people might not know what it is and why it's useful.

PM: Yeah, to be perfectly honest, I'm trying to get my head around it a lot at the minute, so I might not have the clearest definition for you, but like I said earlier, a good way to think about is that the teacher's role is broken down into two core aspects, the pre-active phase or the planning for learning, and then the execution or the element, or implementation or delivery, however you want to phrase that. I think learning design is really all set in that pre-active phase, so before learning actually happens, thinking about it, and I'd say that learning designers are people who have a very nuanced understanding of both the kind of science and the arts side of that learning design, and it's the same as any kind of design. Design's one of those great things that pose together both traditional science thinking through the lens of engineering, and more artistic creative thinking, and so for me, that's who learning designers are. There are people who have got a deep understanding of the design process and how they can use that to support the creation of a set of experiences that are going to help people to learn. Does that help at all?

LC: It does indeed, and what I find fascinating is that it's marrying two disciplines together, because often you get the twin culture argument that's still out there. It's either all to do with the science or all to do with the art, and it's nice to see an arena where the two meet and are functional, which is unusual within the educational sphere, I think. So, can we move on to some of your projects? You've got something called Project OpenPlan, and this is fascinating, because I just came across it. I don't know…I forget how I came across it, but probably through Twitter or a link down through Twitter.

PM: I think it was Laura Kirsop might have tweeted…

LC: Yes, Laura, that's who it was. You've got a better memory than me. Laura tweeted out about it, and I know Laura as a colleague – I don't personally know her, but on Twitter – and she tweeted out about it, and so, can you tell me about *OpenPlan* and what it's about?

PM: Sure, so, learning design is my thing, and very closely related to learning design is this idea of rigorous pedagogy, so good approach to helping people learn, and so, one of the things that has been the thorn in my side for many, many years is the fact that people don't talk about their pedagogy enough, they don't talk about learning design enough, so they don't talk about the planning of their teaching enough. It happens, to a large extent, pretty much in isolation, and that's just crazy when you start to think about the consequences of that, so what we've got at the minute

are hundreds and thousands of teachers in the western world, all planning for fairly similar topics, but doing so in complete isolation, and what that means is that thinking economically, all of those hours are sitting side by side, and not building on each other. That's really, for me, is just a colossal waste, and so that's the persistent challenge, persistent social problem that I want to set out to try and address with OpenPlan, and so what we're trying to create is a system whereby we're making social…or we're making lesson planning a social enterprise, but not only making it a social enterprise, but doing it in a way that will help people to develop more sophisticated learning design or pedagogical approaches.

LC: Okay. You talk about it in terms that some of the listeners might understand. You talk about a *Pedagogical Mark-up Language*. It's a bit like *GitHub*. Can you explain what those terms are? They're kind of metaphors for, or are they metaphors? Or are they comparisons with those things?

PM: Yeah, well, at the minute, they are both metaphors and comparisons. The engineering behind OpenPlan hasn't taken place yet. We've spent about six months working on the design framework, and one of the things that was really important to us as learning designers is that learning is recognising that learning is essentially a social process in many cases, or it's not often as effective without the social dimension, and *GitHub* is just one of those tools that has really nailed that social dimension in what previous to the tool coming along, was potentially quite an isolated activity, so in the old days, people found it difficult to share their code, so *GitHub* is basically social coding, and so now they have a system where they're able to share their code openly, and other people can repurpose it, remix it, whilst still attributing the original author.

So there's some sort of sophisticated kind of social architecture that's built into *GitHub*, that we see will be really important to think about in the lesson planning context, so we're looking at trying to develop a social lesson planning tool. We'll also have some sort of sophisticated social architecture built in, in similar ways as in people will be able to fork each other's lessons so we'll remix and repurpose them, whilst accrediting original authors, but also, they'll be able to evaluate and reflect and comment on both their own lessons and other people's lessons, so that's kind of where the whole *GitHub* metaphor comes in. It's a really good model to take from another context to apply in an educational setting, and we hope that there'll be a lot of mileage in that. It's not going to transfer completely, but there are going to be some big ideas that hopefully we'll be able to take from that, that are of great value.

The *pedagogical mark-up language* then, is our effort to try and, like I say, foster this greater sense of a language for teaching, or pedagogical language. Because, like I said before, the majority of teachers plan their lessons in isolation, they don't talk about it much, and so what that means is that that language really hasn't developed as much as it should have, compared to some other aspects of teaching, for example the implementation, and so what we're going to try and do is to help the community to develop that common language, so rather than starting out and saying, these are the kinds of words that you're going to be using to describe particular activities, what we'd like to do is to come up with a

system that recognises recurring good practice, and begins to highlight it and encode it for people automatically, so that very quickly they can begin to see which aspects of lesson planning are important, and which aspects of lesson planning are being repeated, which aspects of lesson planning are effective, so that they can appropriate those things for their own lesson plans.

LC: So immediately that intrigues me, because how are you going to get those inputs and those decisions, how are they going to be made, because that is leaping from the design to a process whereby you have to take the data in and reflect on it and iterate it, and then a qualitative decision has to be made, so how is then that decided?

PM: Ah, well, there's a bit of work to be done on that side of things, I'll be completely honest. We're looking into semantic analysis at the minute, but you mentioned the word iterate, and I think that a big part of the process for us will be iteration, close cycles of iteration from a very early point, and it's likely that we're just going to start with a very crude system, whereby we get a bunch of interested practitioners together and talk about the kinds of pedagogical elements – for want of a better term – that they might like to have at their disposal when planning a lesson, and to give you an example of that, a pedagogical element might be that you are deciding that the first activity in your lesson plan is going to be one that relies on people working in pairs, so that's a pedagogical decision.

Also you might decide that the first element of your lesson plan might be focused on students remembering something from a previous lesson. Again, that's a pedagogical decision and if we can come up with a bank of these and give people an easy way to drag those, almost, into their lesson plan, it means that they'll, a) be able to construct a lesson plan quite easily and quickly, but also *b)* they'll be able to, whenever they look at other people's lesson plans, have some footholds as to how other people are thinking, and what kind of practice is emerging, so what you're talking about is quite a few years down the line, whereby the system itself begins to analyse practice and to start to help us understand which kinds of pedagogical terms are beginning to emerge more commonly than others, but to begin with, it's going to be a bit more crude than that, it's going to be a lot more of a human system.

LC: Yes, because you've got *BlogSync* coming out now. You know about *BlogSync*?

PM: Yes.

LC: And all those initiative starting to emerge, but this is kind of…you mentioned *RCT*s fitting into this. Can you give us a bit of background in *RCT*s and how they fit into this whole general system?

PM: The whole *RCT* thing really came from this speech that *Ben Goldacre* did, that was commissioned by *Michael Gove* a few weeks ago, and for many years, *Ben Goldacre*'s been championing the use of *RCT*s in science, more generally. He comes from a medical background, where actually they've been largely effective in certain ways, and so he believes that actually

there's transferability there, and education's ripe for that. Now, what they are, really, are Randomly Controlled Trials, so it's whereby in an edtech context what we'd do is, you'd freeze a product or freeze a process, and then you'd gather significantly large amounts of data about that process, and then begin to analyse that data, so it's really about using large amounts of data to try and analyse what interventions are effective and which interventions are not effective, so it's about trying to figure out what works best in education. The thing about *RCT*s is that they don't answer the how or the why questions, so it's really important that alongside large scale quantitative research, that we have the more qualitative dimensions as well so we make sure we move forward with an understanding of not just what works, but how we can design better tools for learning.

LC: Yeah, I'm glad you said that, I'm glad there's a formative aspect in there, because wriggle room…what worries me is always the tension between the scientific and democratic control over educational practice and research. There is a moral and social dimension to this, I think a lot of people, especially people who maybe are on the scientific, mathematical side always seem to think it's a binary decision, what works and what doesn't, and that really worries me in terms of that discussion, because I think it's a bit more nuanced than that. This tool is interesting because…is it a tool, is it a community? Is it a community of practice?

You could go back to *Wenger* or *community of practice* here, but is this thing…about this – let's put it – process that you're involved, this endeavour you're involved in, this design, is that it seems to be bottom up, and that you're going to have to convince people to get in there, which is good, that's historically been very hard. This is one of the things I can see with *RCT*s. I was talking to a guy called *Stefan Kreitmayer* the other day, and he is someone who does these games, and he does them for adults, so it was andragogy, but he said just getting into schools, the process of getting into schools is one of the biggest barriers. I'm pleased you said there are like-minded things, like-minded practitioners, but the problem with that though is, you're going to get a bias, you always will get that coming into the project. How do you…I've looked at your site and you've got a roadmap, you've got a definite roadmap of action going forwards.

PM: Yeah, just before we go there, can I just pick up on a couple of things you mentioned there, because I think they're really interesting, so firstly, the whole case of user adoption, and I completely agree that it's not easy to… it's a real challenge to create edtech tools that teachers want to appropriate and appropriate easily and fit with the complexity or, sorry, complicatedness, perhaps, of the educational system, but the other thing you mentioned earlier was *BlogSync*, and so you've got things like *BlogSync* happening at the moment, and you've also got…Tom Bennett set up this *research ed conference*, so I get the sense – and I've had this sense over the last couple of years – that there's beginning to become a real thirst for tools to help teachers develop more evidence-based practice, or give them more ownership of their practice and create a more professionally autonomous or independent workforce, and so I agree that history would say it's been a challenge, but I would also argue that the

time is right for us to try out these things, and the other thing that you mention about getting people on board, we're not trying to get everyone on board, this isn't the aim.

What we're trying to do is to try and target those people who feel that they could benefit from a tool like this, who want to engage with it, and create that tool around them, build it for them and then hopefully that will pave the way or illuminate the practice that they're doing, in ways that other people hopefully see that are of value and will follow them. So we're not trying to change the world by getting everyone to do something, we're hopefully changing the world by highlighting some really good practice, and hoping that other people will see it and want to get involved, if that makes sense.

LC: Yeah, that makes perfect sense, indeed. So, tell us about the roadmap that you're going to go forwards with?

PM: Sure, I'm just going to put up my computer to remind me.

LC: You've got things…you've got design, team, community and you've got a section for positioning. I'll let you tell us.

PM: Of course. I've been working on the design for a long time. This has grown a little bit out of my doctorate, grown out of my personal interests, grown out of my practice, so it's been there, simmering away for a long time. The things that we've had to work hard on more recently are the people aspect, so getting together a team that I think will have the capacity to deliver something as complex as this, and so we've done that by and large, we've put together a team of people who have both expertise in learning design, but also expertise in web development, and it's hard to find people like that who've got a foot in both camps and who you're able to work with as well, of course.

We've done that and we've done a trial project. We've tested ourselves out with a smaller scale project, and that's worked really well, so I feel confident we've got the people necessary to move forward with this. The big stage at the minute is trying to gather a bit of resource support to help us find the time and the tools to be able to build it, but let's assume that happens, what would be happening after that is that we crack into an *agile design process*. In educational research, there's an emerging field of research called *educational design research*, and that's really interesting, because earlier on when we talked about *learning design* and *user experience* coming together a little bit, the same thing's happening on the process end of things, so we've got *agile design*, obviously, has found a really strong foothold in the world of software development…

LC: Can we just stop that there, and can you just explain to those people who don't understand – I'm sorry to have to stop you – what *agile design* is.

PM: I don't have a huge understanding of it, but for me, what it means is that you are building tools in a way that is responsive to user needs more than sitting down beforehand and thinking about…having long lead design times into the product, so rather than sitting down and really thinking

about the design for six months, what you're doing is you're starting out with perhaps the minimum assumptions that you can make about the product, building it, testing it very quickly, getting feedback on it and iterating on that design, so that, for me, is really what's at the heart of *agile design*.

Very similarly, we're seeing a kind of parallel process or parallel research part emerging in education called educational design research, which is very similar, except that it's a bit more rooted in theory, so for educational design researchers, what happens is they start with the evidence of what works with theory, build a kind of design framework around that and then get into the agile process of quick cycles of both design, build and test, and so I think that's a really important part of the process, because if you don't do that, then there's a real danger that you build something that is not needed, doesn't work, doesn't fit, and we've seen too many times in the past that education has failed to really embrace educational tools, and for me, I think the fault actually lies in the design and build process, rather than with the education community themselves.

LC: Yeah, I would agree with that, and it comes down to research policy and practice. If you have a top down centralisation of something, people aren't going to buy into that necessarily unless there's a bit stick to do that. If you want someone to adopt and reflect iterative process which is based around the community, you need the community to engage with it. I would go further and say you'd have to 'event' it as well to…with lots of TeachMeet communities, it's to get your message across. You have to get out there and talk to communities, so Tom's festival or conference is a very interesting one, because that is precisely what people have to do, it's bring people together who have that particular interest.

You get those cross fertilisations, those cross references, which is very much like the TeachMeet community, which is evolving into different areas, and into different…well, one of the quietest, most effective communities is the *ASE TeachMeet*. It's going on very quietly behind the scenes, and they're very, very focused, in terms of their practice, very precise, which is very interesting, whereas with the other bigger TeachMeets, it's sometimes more to do with the social interaction, then demonstrations of certain techniques, but then there's no cohesive structural underlying format that gives a structure to some ways of bringing things forwards. That's what I find quite interesting about that, so please, please, go on. Talk a bit more about the map.

PM: Yeah, I think it's a nice kind of comparison to draw between *OpenPlan* and *TeachMeets*. I hadn't thought about it before, but now that you say, now you talk about what good TeachMeets look like really, those *ASE TeachMeets* I imagine, when people sit down to talk and one of the reasons they're most successful is because it provides a space for people to talk about their practice and again – you referred to *Wenger* – what happens is that a common discourse begins to emerge, or a common language begins to emerge, that actually binds that community even more strongly, but the *TeachMeet* can be perceived as a tool, in many ways, to allow people to do that, and what we're trying to do, I suppose, with *OpenPlan* is to design a tool. Although it exists in a digital context,

it's actually got a very similar purpose in terms of bringing a community together, and creating a space for them to be able to communicate and develop a common language for what ignites their passions, what they're interested in.

LC: So, this whole thing is going to move forwards, and the last bit you've got is this scaling bit. Now, that's the interesting bit to me, because you've got, in terms of monetisation and marketing and start-ups, because you do mention you're involved in start-ups or the process of educational start-ups. There've been a couple of *Pearson-sponsored start-ups* over the last couple of years where people come together over 48 hours, and this is a bit more considered - longer term. Can you tell me about this process and how it slots into the whole thing?

PM: Yeah, so, I think we're certainly starting out with a really ambition vision of where this might go. One of the real potentials of having this tool in a digital context means that it can scale to potentially global proportions. You can achieve that with a local *TeachMeet*. A *TeachMeet* is great, it brings people together, but there are geographical constraints. Now, a couple of things, firstly, we have to be really careful about the whole scaling process. There have been lots of lessons learned about the importance of that early adopter community and about setting the right tone and getting the practice right and all those sorts of things, so it wouldn't be something that we'd want to rush at all, and in fact, I strongly believe that in putting a lot of investment into supporting an early group of users, to help them appropriate the tool in the way that it's most effective for them, but also in a way that is clear for other people, so that when we do come to scale, people know how to use it and know how to get the most out of it, so that's one of the important things we are thinking about, in terms of scaling.

        In terms of the business model, that, to be honest, is something that we're going to need a bit of support with when it gets to it. There's a couple of big initiatives happening at the minute. You've got the *Education Endowment Fund* who are supporting a digital technology round, and you've got the *Nominet Trust* who have got an open innovation call, and you've got people like *Bethnal Green Ventures*, who are supporting social edtech innovation start-up teams, and I think what we'd like to do is to tap into some of that expertise somewhere down the line to provide that sort of skills and expertise and knowledge that we don't have, because we can't do everything. We feel comfortable innovating with the technology and the pedagogy, but with a business model, I'm going to need to bring in some help for that.

LC: Yes, it's something I've been saying for some time, but there's various silos out there, and they're beginning to join up. I was contracted to film the *Nominet Trust* makers' discussion the other week, and what came out of the review – because to be honest, a lot of people are still doing reviews rather than…because there isn't any black and white outcomes – they'd done a whole review about the whole landscape of *making*, what are the outputs. One of the main things that came out of the reviews was that people are still not coming together across the silos. That is slowly beginning to happen, and I'm thinking of now things like *Computing at*

School, who are more to do with computing than ICT, but that's the way the wind's blowing at the moment, but you've also got people like *Code Club*, who are coming from left field, and that is why I look at people like *Laura*, because I look at the way those communities overlap and who, when Venn diagrams come together, basically…and it's interesting to see how people do tend to come together, but people keep missing each other, and I don't know why, I think it's something to do with a clash of cultures or…and you have schools and/or commerce or business, all that entrepreneurial mindset out there in the commercial world.

They're beginning to come together to merge, but they're not yet in that set, and there are people within those communities who have given…I'd just love to grab them and put them in a room and say, get on with it! But there isn't a mechanism yet for who has decided what is useful for what, and I see you've got *Doug Belshaw* you're involved with, and of course all that thing coming from outside, like *badging and accreditation* and *web technologies*, coming from outside of institutions and becoming all-encompassing in that sense. These things are gradually beginning to coalesce, in terms of social development, but they're not quite getting there yet, and I think the people, the institutions *are* aware of that, but I don't think – let's put it this way – the venture capitalists are quite aware of that, maybe because they have a different route in. I don't know how that's going to square in the long run, but again, that's another discussion for another time, I think, possibly.

PM: It is, it's a very important one, but you're absolutely right, there's a lot of difference in even simple things like the language that those groups use, and really that potentially stems a lot from both our history, but also the values that they bring to the projects, but I think the Venn diagram is, for me, just sits in front of my head always, for this kind of project, or for any edtech project. I think you need the technological innovation, the pedagogical innovation, but you need the business model innovation as well, to be able to really build something that is going to have a bit of a life of itself, beyond the end of the project. I think to make that happen, what you need to do is to bring a multi-disciplinary team together, or as many people who've got skills in different domains as we can, but there aren't that many people who've got that kind of skills in those three camps, so what we're probably going to need to do is bring in some help to help us with that, but it'll need to be people who have an understanding and an appreciation of the importance of the pedagogical side of things, because without that, you're just going to end up with, I think, tensions that are unresolvable, to be honest.

LC: Well, I wish you luck with it. I wouldn't want to approach it! I presume we'll see you at the conference, and see this filtering out gradually through social media, and other media's people get involved with before then, as it starts to be built and be assembled or assemble itself, in terms of that, and thank you very much for giving me the time today.

PM: A pleasure, Leon, really nice to talk to you, and absolutely, we'll be keeping everyone informed as we progress.

End of recording